

**COMPATIBILITY DETERMINATION  
CONSTRUCTION OF A COMMUNICATION TOWER  
CABEZA PRIETA NATIONAL WILDLIFE REFUGE**

**USE**

The U.S. Department of Homeland Security (DHS) proposes to construct a communication tower within the Cabeza Prieta National Wildlife Refuge and Wilderness Area (CPNWR) as part of their Secure Border Initiative (SBI). As defined by DHS, SBI is a comprehensive multi-year plan established by DHS in November 2005, to secure America's borders and reduce illegal immigration. *SBI<sub>net</sub>* is the component of SBI charged with developing and installing technology and tactical infrastructure solutions to gain operational control of our Nation's borders. The goal of *SBI<sub>net</sub>* is to field the most effective, proven technology, infrastructure, personnel, and response platforms, and integrate them into a single, comprehensive border security suite for DHS. The proposed communication tower is part of the *SBI<sub>net</sub>*, Ajo1 Project.

**REFUGE NAME**

Cabeza Prieta National Wildlife Refuge  
Pima and Yuma Counties, Arizona

**ESTABLISHING AND ACQUISITION AUTHORITY**

President Franklin D. Roosevelt established the Cabeza Prieta National Wildlife Refuge on January 25, 1939 by Executive Order 8038.

**REFUGE PURPOSES**

1. The refuge was "reserved and set apart for the conservation and development of natural wildlife resources, and for the protection and improvement of public grazing lands and natural forage resources...Provided, however, that all the forage resources in excess of that required to maintain a balanced wildlife population within this range or preserve should be available for livestock..." (Executive Order 8038 January 25, 1939).
2. Enactment of the Arizona Desert Wilderness Act of 1990, designated over 90 percent of the refuge as wilderness and created a supplemental refuge purpose of wilderness protection in accordance with the Wilderness Act of 1964.
3. Several other Federal policies, regulations, and laws affect refuge management activities. Preeminent among these is the Endangered Species Act of 1973, this act mandates the protection and recovery of threatened and endangered species.

**NATIONAL WILDLIFE REFUGE SYSTEM MISSION**

The mission of the system is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant

resources and their habitats within the United States for the benefit of present and future generations of Americans.

### **DESCRIPTION OF USE**

DHS proposes to construct one communication tower at an existing communication site in the Growler Mountains on the CPNWR and wilderness area (Figure 1) as part of the *SBI<sub>net</sub>*, Ajo1 Project. The tower will function as a communications relay tower (CRT) between towers located on the Organ Pipe Cactus National Monument and the U.S. Border Patrol Ajo Station. The CRT is proposed as a steel lattice structure, attached to a concrete foundation that will be secured to the ground with rock anchors. The height of the structure will be approximately 33.5 feet (10.2 meters). In addition, a 16 foot wide by 14 foot tall solar panel array will be attached to the tower. There will also be three storage units placed within the footprint of the tower to store batteries and communication equipment. In order to avoid damage to the sensitive electronic equipment, a grounding ring must be installed around the structure. The grounding ring will need to be installed around the tower approximately 18-30 inches below the ground surface. The construction of the grounding ring will result in impacts throughout the 35 x 35 feet project area. The permanent construction buffer will be 35 feet x 35 feet (10.7 meters x 10.7 meters) (Figure 2).

A bare minimum of clearing, grading and leveling will be required to install the CRT. DHS will use a Kaman K-Max helicopter with a lift capacity of 6,000 pounds to haul construction material and equipment to and from the project site. A helicopter capable of carrying no more than nine passengers will be used to transport construction personnel to the site. Helicopter lifts will originate from the Ajo Airport and follow a route designed to minimize impacts to Sonoran pronghorn (*Antilocapra americana sonoriensis*) (Figure 3). Approximately 85 flights are needed to complete the construction of the CRT (Table 1).

According to the September 2009, Draft Environmental Assessment for the Proposed *SBI<sub>net</sub>* Ajo-1 Tower Project (EA) prepared by DHS, the purpose of the proposed action is to improve U.S. Customs and Border Protection's (CBP) efficiency and probability of detection, identification, and apprehension of individuals illegally entering the U.S. or conducting illegal smuggling activities. The objective of the *SBI<sub>net</sub>* project is to maximize surveillance along approximately 30 linear miles of U.S. border within Organ Pipe Cactus National Monument and the most eastern portion of CPNWR.

This *SBI<sub>net</sub>* Ajo1 project is needed to:

1. Provide more efficient and effective means of assessing all border activities;
2. Provide rapid detection and accurate characterization of potential threats;
3. Provide coordinated deployment of resources to apprehend cross border violators;

4. Reduce crime in border communities and to improve the quality of life and economic vitality of border regions through provision of the tools necessary for effective law enforcement; and
5. Increase surveillance and interdiction efficiency, reduce environmental impacts, and enhance habitat restoration efforts.

The impacts to trust resources from the illegal smuggling of people and narcotics into the CPNWR have been well documented. Although there are no accurate estimations of the level of smuggling activities across the CPNWR and surrounding areas, impacts from these activities can be observed throughout the CPNWR and surrounding areas. Because there are very few roads and the area is extremely remote, CBP must utilize east-west oriented roads and observe tire and foot sign. Once sign is identified, agents travel off-road often via vehicle. This illegal activity and subsequent operational strategy has resulted in a tremendous network of foot trails, two tracks, and illegal roads throughout the project area, much of which is federally designated wilderness. In addition to illegal roads and trails, these illegal activities have resulted in a substantial volume of trash, abandoned vehicles, livestock trespass, and increased crime and security issues. There has also been an increase in the occurrence of wildfires and outbreaks of invasive species tied directly to illegal smuggling activities. A better strategy to identify and interdict illegal smuggling operations is needed to meet both the purpose and need of the *SBI<sub>net</sub>* program as well as the mission of CBP and Department of Interior (DOI) managed lands along the international border with Mexico.

In March 2006, DHS entered into a Memorandum of Understanding (MOU) with DOI and the Department of Agriculture regarding cooperative national security efforts on Federal lands along the U.S. Border. The MOU specifically states, “The parties are committed to preventing illegal entry into the United States, protecting Federal lands and natural and cultural resources, and – where possible – preventing adverse impacts associated with illegal entry by cross border violators.” Section IV(B)(6) of the MOU allows for the installation or construction of tactical infrastructure on DOI lands, including areas designated as wilderness provided it is the minimum tool necessary.

The April 2007, CPNWR Comprehensive Conservation Plan, Wilderness Stewardship Plan, and Environmental Impact Statement (CCP) references the existing agreements (including the 2006 MOU) between CPNWR and CBP in addition to cooperative activities such as joint operations and the deployment of remotely operated sensors. However, surveillance and communication towers were not mentioned or evaluated in the CCP.

### **AVAILABILITY OF RESOURCES**

Authorizing the construction of a CRT and associated maintenance of the CRT, will require some expenditure of CPNWR resources, including personnel and funding. DHS will be

responsible for the planning, construction, and maintenance of all improvements related to the project, but there will be costs associated with the long-term coordination, monitoring, and evaluation of the tower project in combination with other DHS activities. CPNWR resources are extremely limited and when staff time is utilized coordinating with DHS on border related issues, the annual goals and objectives necessary to successfully manage the CPNWR are not met. However, the administration and management of the proposed CRT tower can be accomplished within existing financial and personnel resources available to the CPNWR.

### **ANTICIPATED IMPACT OF THE TOWER**

Section 4(c) of the Wilderness Act of 1964 generally prohibits the placement of any type of permanent infrastructure in wilderness, except as necessary to meet minimum requirements for the administration of the area for the purpose of the Wilderness Act. Furthermore, we generally view the development of any infrastructure considered non beneficial to wildlife as an impact to wildlife or their habitats.

However, the current strategy for identification and interdiction of illegal activity has resulted in a significant amount of resource damage to wilderness and other refuge trust resources including Sonoran Pronghorn, a federally endangered species. CPNWR staff repeatedly report the occurrence of well used routes of travel where no route previously existed. Off road interdiction activities have resulted in a proliferation of roads on the refuge. We conservatively estimate there are at least three times as many frequently used roads present on the refuge than at the time of wilderness designation; this does not include the lesser used trails that wind through virtually every valley within the refuge. In addition to impacts to wilderness character associated with off road travel, the current strategy for identification and interdiction of illegal activity has affected the movement of Sonoran Pronghorn through the Growler Valley. The Sonoran pronghorn population within the U.S has failed to increase since 2004; likely because of the level of activity occurring within this area. Furthermore, a significant portion of pronghorn are currently occupying habitat within the tactical ranges on the Barry M. Goldwater Range, affecting the ability of the U.S. Air Force to conduct training missions. Pronghorn are staying on the tactical ranges and avoiding their traditional, seasonal migration routes to important summer habitat areas in the southeast portion of their current range. I believe this is due to the level of impacts associated with smuggling and resulting interdiction activities occurring along the routes pronghorn take to access this summer habitat. Implementing actions to improve law enforcement effectiveness and thus deter illegal to activities would benefit wilderness, Sonoran pronghorn, and other refuge trust resources as well as meet the mission requirements of the CBP.

CBP proposes to place the CRT at an existing communication site utilized by CPNWR, the U.S. Air Force and CBP. The CRT will relay information about illegal smuggling activity occurring within the OPCNM and CPNWR Wilderness Areas. We believe the CRT, if effective, will be a tool to help improve identification and interdiction of illegal smuggling activities in the eastern

portion of the Growler Valley and will lead to a cessation of off road travel in this area. Therefore, the CRT, if effective, will be a useful tool and have a positive impact on wilderness stewardship on the eastern portion of the wilderness area and may improve an historical pronghorn migration corridor, allowing pronghorn to return to areas in the southeastern portion of CPNWR and western portions of OPCNM.

Other trust resources may also benefit from an effective *SBI*net tower configuration. If effective, we anticipate a reduction in the amount of trash both within the Growler Valley and Childs Valley. Both of these valleys have numerous congregation spots that are saturated with litter, clothes, and human excrement. We also anticipate a reduction in the number of wildfires occurring on the refuge, we typically have at least one fire a year started by illegal border crossers. We also anticipate a reduction in crime and improved security associated with the configuration. We have been forced to develop a border safety plan where we do not allow CPNWR staff to travel south of El Camino del Diablo or to camp in high use areas unless escorted by law enforcement personnel; this has resulted in a reduction of CPNWR activities in these areas. Finally, we are consistently diverted away from refuge management activities in order to coordinate with CBP to address the various security risks, issues, and tactical infrastructure requests.

DHS states in their September 2009, EA that the proposed project will result in overall beneficial impacts within the region through a reduction in illegal activities and resulting decreased human activity in sensitive areas such as designated wilderness and endangered species habitats. A reduction in illegal activities and subsequent law enforcement interdiction efforts would also reduce adverse impacts to the natural and human environment and allow currently disturbed habitats to rehabilitate through natural processes or management efforts. If these towers are effective, DHS believes illegal activities will drastically decrease in areas where towers are located. Conversely, areas without towers may see an increase in illegal activity. It is possible for an increase in impacts to CPNWR resources further to the west outside the influence of the *SBI*net towers.

#### Direct Impacts

The most significant direct impact from constructing a CRT within CPNWR is associated with wilderness. DHS will be constructing a permanent installation in wilderness. Furthermore, this permanent installation will be observable from a significant portion of the Growler Valley (Figure 4). DHS created Figure 4 and CPNWR does not agree with the entirety of the map. CPNWR believes the tower will also be readily observable from a significant portion of the Childs Valley as well as the northern portion of OPCNM and the eastern portion of lands managed by the Bureau of Land Management. Adverse effects on the visual qualities of designated wilderness will have a long-term moderate effect on wilderness quality within the eastern portion of CPNWR.

Other expected direct negative impacts of the CRT include the temporary disturbance of 0.03 acres during the construction of the CRT and 0.005 acres of permanent impacts associated with the construction and operation of the CRT. These impacts will include the removal of several plant species that are locally abundant within the area, including: brittlebush (*Encelia farinosa*), triangle-leaf bursage (*Ambrosia deltoidea*), and creosote (*Larrea divaricata tridentata*). Agaves (*Agave deserti simplex*) and saguaros (*Carnegiea gigantea*) will be avoided to the maximum extent possible; if individuals cannot be avoided a CPNWR approved botanist/restoration specialist will replant them nearby. We also expect direct impacts to wildlife associated with the construction of the CRT. DHS anticipates the construction of the CRT to take approximately five weeks. During this time, there will likely be at least one helicopter trip to the site each day. This will have an effect on desert bighorn sheep (*Ovis canadensis mexicanus*) especially if the construction is to occur in January or February as this is typically the beginning of their lambing season (although lambs can be dropped in December). Helicopter activity may also impact Sonoran pronghorn as the majority of pronghorn recovery actions are located in the Childs Valley, including two forage enhancement sites located immediately north of the planned helicopter travel route. If helicopter traffic flies over these areas, pronghorn may move from the area, which may affect their survival or reproductive potential. Daily helicopter traffic is also expected to cause desert bighorn sheep to move away from this area. This may have an effect on movement, dispersal, and even survival of desert bighorn sheep lambs if activity forces unnecessary movements. In addition, the placement of a 30 foot tower may result in bird and bat strikes flying near the tower. There are a large number of agaves and saguaros nearby and this may result in mortality to lesser long-nosed bats (*Leptonycteris curasoae yerbabuenae*). In addition to construction activities and impacts from the CRT, DHS plans to conduct four annual maintenance visits to the site each year. This will result in four helicopter landings in wilderness each year to maintain this site. Additional flights may be required for unscheduled equipment repairs.

DHS provided a Biological Assessment to the Arizona Ecological Services Field Office (AZESFO) on September 15, 2009, as part of the formal consultation process pursuant to section 7 of the Endangered Species Act of 1973. The AZESFO provided a final biological opinion (BO) on December, 09, 2009. The BO addresses conservation measures to minimize resources impacts to federally listed species associated with constructing the Ajo1 SBInet project. The Service determined the project as proposed would not jeopardize the continued existence of Sonoran pronghorn or lesser long-nosed bats. In addition, DHS identified numerous offsetting measures, if implemented, would offset impacts to both Sonoran pronghorn and lesser long-nosed bats. In order to minimize impacts to Sonoran pronghorn, DHS has agreed to have biological monitors survey areas prior to the onset of activity to ensure construction activities do not affect pronghorn. DHS has also agreed to follow an ingress and egress path that is located away from all existing pronghorn recovery projects. DHS will develop and implement a

monitoring plan and program to document and assess tower related mortality of lesser long-nosed bats. This monitoring project is scheduled to begin once the construction of all Ajo1 towers is completed. If mortality of lesser long-nosed bats is identified at the towers, DHS will work on developing tower retrofits to reduce lesser long-nosed bat mortality.

#### Indirect Impacts

Overall, the Ajo1 project may indirectly increase adverse impacts to CPNWR wildlife and habitats as illegal activities may shift to the west away from the influence of the *SBI*net towers. This project could result in an increase in smuggling and interdiction activities to the west of the towers and increase off road impacts through the central and western portions of CPNWR. If illegal smuggling and subsequent interdiction efforts move into the bajadas and mountains, there could be substantial impacts to Sonoran pronghorn and lesser long-nosed bats and possibly desert bighorn sheep.

Within both the EA and the Biological Assessment, DHS concurs it is extremely likely for illegal smuggling traffic patterns to shift due to the placement of the Ajo1 Project. CBP will deploy agents, sensors, MSS units, and other technology to supplement tower technology. If, however, concerns arise regarding trends in illegal traffic and their effect on resources, CBP and the land managers will work collaboratively to find solutions to the operational challenges.

#### Visitor Use

Most visitors come to the refuge to watch wildlife, observe the Sonoran Desert vistas, camp, and hike. Visitors recreating in significant portions of the Growler Valley may observe the CRT and their wilderness experience may be compromised. Furthermore, visitors recreating in the non-wilderness portion of Childs Valley will also be able to observe the CRT, resulting in a degradation of wilderness character.

Many visitors come to CPNWR to experience the untrammelled and undeveloped nature of the CPNWR wilderness area. The presence of this CRT and its visibility over such a substantial area will detract and reduce the quality of the wilderness experience in the Childs and Growler Valleys. However, if effective, the Ajo1 project will significantly reduce the amount of illegal traffic and resulting off road interdiction activities by CBP. This decrease in off road impacts will substantially improve the wilderness quality of the eastern portion of the refuge, which is currently in a significantly degraded condition due to years of frequent off road smuggling and interdiction activities. Within the EA, DHS maintains that as illegal activity declines as a result of the towers, the amount of off road use by CBP is expected to decline. DHS expects the towers to help guide CBP to interdict illegal smuggling activities in targeted locations along roads and trails, thus leading to a decrease in damage associated with off road interdiction activities.

### Cumulative Impacts

The construction of a CRT conflicts with several CPNWR wilderness goals and objectives. Furthermore, if the Ajo1 Project proves effective, these conflicts will be long term in nature as DHS has committed to removing the tower within a year if they determine the Ajo1 Project fails to meet the stated goals and objectives. Also, if the towers are effective and consequently the illegal smuggling traffic moves to the west onto CPNWR, wildlife, wilderness, and other trust resources may be significantly affected by smuggling and subsequent off road interdiction activities.

In addition to the towers, several bureaus within DHS have contacted CPNWR regarding potential infrastructure and development projects within the refuge. These projects include: widening of El Camino del Diablo; repair and maintaining vehicle routes through wilderness; and the construction of multiple repeater sites throughout the refuge. Many of these projects have been discussed with refuge personnel over the last few years, however with the completion of the tactical infrastructure project along the International border, DHS is beginning to examine other strategic needs. These requests do not seem to be coordinated within DHS and force refuge staff to react to each request independently.

Most of the projects will affect pronghorn, wilderness, sensitive cultural resources, and other refuge resources. Furthermore, the cumulative effects of these projects will have significant negative effects on these resources and potentially alter the character and feel of Cabeza Prieta NWR. The proposed widening of El Camino del Diablo may significantly degrade the feeling and association of the trail, which made it eligible for its current listing on the National Register of Historic Places. Over the last decade, there has been a proliferation of roads within the refuge wilderness area. There is a strong need to repair and maintain agreed upon access routes through wilderness. Large sections of routes through wilderness are impassible, resulting in very wide turnouts and alternate routes within wilderness. These routes are routinely used (4-8 trips/day). Maintenance of these routes would improve wilderness resources on the refuge, however, the Wilderness Act specifically prohibits permanent roads. In addition to the improvement of public use roads and routes through wilderness, DHS has also began discussions for six radio repeater stations on the refuge. Most of the repeater sites are located at existing disturbed locations, however one site is located in an undisturbed wilderness area within viewing distance from a public use road. In addition to these proposals, DHS also has plans for additional *SBI<sub>net</sub>* towers located on CPNWR. The planning for this proposal has been postponed, and is not expected to begin discussions until 2011. To my knowledge, there has been little coordination between DHS on how these proposed actions compliment or compete with each other. For example, the need to repair and maintain some wilderness routes or repeater sites may not be necessary based on the proposed alignment of *SBI<sub>net</sub>* towers. Furthermore, the cumulative impacts to wilderness and pronghorn may not be compatible with the Refuge Improvement Act and may significantly impair our ability to recover pronghorn within their current range. If these actions are proposed, it is essential for DHS to begin close coordination with CPNWR to discuss the merit of each



proposal, and if measures can be developed to avoid or minimize impacts so as to avoid significant cumulative adverse effects on CPNWR trust resources.

## **PUBLIC REVIEW AND COMMENT**

The National Wildlife Refuge System Improvement Act of 1997 requires the Refuge Manager to provide an opportunity for public review and comment for all compatibility determinations. The purpose of the review is to offer the public the opportunity to provide relevant information regarding the compatibility of the proposed use. The Refuge Manager must consider all information provided during the public review and comment period. The Refuge Manager is not required to respond but will use all information available to make the most informed decision possible.

Public review and comment was solicited for this compatibility determination for a 14 day period beginning January 19, 2010 and ending February 1, 2010. Due to a number of requests the comment period was extended one week, ending on February 8, 2010. The availability of the compatibility determination was announced through a press release in the Arizona Daily Star and the Ajo Copper News. The Arizona Daily Star also published a small article on the issuance of the Draft Compatibility Determination. There were also public notices posted in the Ajo Post Office, Gila Bend Post Office, Ajo Public Library, and the Maricopa County Sheriff's substation in Gila Bend.

We received four comment letters. Three respondents adamantly opposed the proposed action and one respondent provided comments expressing concern that indirect and cumulative impacts associated with border security infrastructure and operations are not currently being properly addressed and there is the need for a more comprehensive planning process, including the development of a Programmatic Environmental Impact Statement.

Two respondents stated the public review period was not long enough to provide comments. The draft Environmental Assessment, which included the proposed construction of the CRT on CPNWR, was available for public comment for 30 days beginning September 11, 2009. Furthermore, we extended the public review and comment period for one week to allow individuals to supply additional comments. We only received one additional comment during the extended review period. We believe the public review and comment period was adequate to solicit comments from interested parties.

Three of the respondents felt the proposed action is a violation of the Wilderness Act of 1964, as the proposal does not meet the minimum requirement to protect the area as wilderness, one respondent requested we evaluate the legality and precedence for permitting such a structure in wilderness. Section 4(c) of The Wilderness Act states, "...and except as necessary to meet the minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area),

there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.” The proposed project obviously will result in the otherwise prohibited activities identified in the Wilderness Act of 1964. There will be the landing of aircraft, use of motorized equipment, and a structure. Furthermore, the tower will be observable throughout a significant area of the eastern portion of the refuge. There will also be periodic landing of aircraft associated with maintenance of the CRT. However, it is our determination that the construction of the tower is “the minimum requirements for the administration of the area for the purpose of this Act”.

We worked with DHS to try and place this CRT tower outside of wilderness. There were two possible locations outside of wilderness; one immediately to the north of the proposed site, and the second on the southern rim of the Growler Mountains. DHS could not use the first site because the terrain would not support the construction of a tower, and the second site did not allow for the communication of information between towers. Additionally, possible tower locations capable of transmitting the information from the sensor tower located on the Organ Pipe Cactus National Monument/CPNWR border to CBP’s Ajo Station were found to preclude our ability to recover Sonoran pronghorn. The level of disturbance at these sites would prevent pronghorn from using important migration corridors to important summer habitats. This blockage of migration corridors would facilitate the need to implement recovery actions within the CPNWR wilderness that would require the use of otherwise prohibited actions stated within Section 4(c) of The Wilderness Act of 1964. These recovery actions would represent a greater conflict with wilderness stewardship objectives than the proposed tower. Furthermore, the initial proposal was to have additional motorized equipment installed to operate the CRT, we worked with DHS to develop a design that precluded the need for generators and the subsequent need to resupply fuel to the motorized equipment. Thus, the proposed project is the absolute minimum necessary to operate the CRT Tower.

We also believe the installation of the tower will protect wilderness resources and thus it is the minimum requirement necessary to administer this area as wilderness. Unfortunately, illegal smuggling activities and the subsequent interdiction activities are occurring throughout the refuge, affecting the safety of visitors recreating in wilderness, degrading wilderness character and function, and impacting federally endangered species and other trust resources including cultural resources. For example, the eastern portion of the refuge bounded by the International Border to the South, the Growler Mountains to the east, the BMGR/CPNWR boundary to the north, and the Granite Mountains to the west, has been significantly impacted by smuggling and subsequent interdiction activities. We have mapped over 3,100 miles of vehicle trails in this area. This is approximately 70 times the number of trails that were present at the time of wilderness designation in 1990. The proposed CRT tower will support a sensor tower located on the boundary of Organ Pipe Cactus National Monument and the CPNWR. The suite of sensors deployed on the tower will allow U.S. Border patrol agents to classify and interdict illegal

activity and we believe will eventually deter illegal smuggling activities in the area. This will allow us to preserve this area as wilderness as illegal smuggling activities and subsequent damage from mechanized transport will be substantially decreased.

Two respondents felt the tower cannot be justified as the minimum required to protect the CPNWR wilderness area as the effectiveness of *SBI<sub>net</sub>* has been seriously questioned. Additionally, one respondent felt the relative level of benefit or impact of the proposed project will actually have on the refuge was not clear. We believe the sensor tower located in the Growler Valley will be an effective tool in classifying and interdicting illegal activity in the area. We base this on the observed effectiveness of a ground based radar system located on the BMGR further to the west. Ground based radar systems were deployed in this area and within a matter of weeks, the US Border Patrol no longer observed illegal smuggling activity within the area under the influence of the radar system. The terrain in the Growler Valley is very similar to the terrain in the area the ground based radars systems deployed on the BMGR; both are very flat areas with very few washes. Given this, we believe the proposed CRT is the minimum necessary to protect this portion of the CPNWR wilderness area, which is the most significantly impacted portion of the wilderness.

One respondent questioned the extent of damage associated with illegal smuggling and subsequent interdiction activities and asked for verifiable evidence regarding disturbance to Sonoran pronghorn and their distribution. As stated previously we have mapped over 3,100 miles of vehicle trails in the Growler Valley. Most of these trails are located in the southeastern portion of the refuge where a sensor tower is proposed and will be supported by the proposed CRT tower on CPNWR. Over the last few years, the bimonthly Sonoran pronghorn survey flights have documented very few pronghorn south of our public use road known as El Camino del Diablo. In fact, most pronghorn have been observed staying much further to the north on the Barry M. Goldwater Range rarely venturing south of the Charlie Bell Trail located in the Growler Valley. This behavior differs significantly from the previous observed movement of pronghorn to the Arizona Upland habitat type located within Organ Pipe Cactus National Monument and the bajadas of the Agua Dulce Mountains on CPNWR. We believe the 3,100 miles of vehicle trails through the heart of the observed migration route provides sufficient information to support our assertion pronghorn are affected by illegal smuggling and subsequent interdiction activities. Furthermore, we believe this supports the need to develop tactical infrastructure capable of deterring illegal activity in this area to protect not only wilderness but reestablish important seasonal movements for pronghorn.

Two respondents felt the proposed tower and maintenance activities will result in a negative impact to wilderness character as the tower will be readily observable throughout a significant portion of the refuge. We agree the presence of a permanent structure in wilderness will be a negative impact, however, the expected results will improve wilderness character in the most impacted area within the refuge wilderness area.

One commenter suggested we consider potential impacts from electromagnetic fields associated with equipment on the tower. The same commenter was also concerned about the potential impacts to birds and bats flying into the CRT. The Final EA for Ajo1 identifies commitments on behalf of DHS to monitor mortalities. If mortalities continue, DHS will initiate an abatement program in consultation with the Service.

Three respondents stated the proposed action was not compatible with desert bighorn sheep as the proposed action will occur within the bighorn lambing season, one of these respondents identified this area as a critical lambing area. We do agree that desert bighorn sheep found near the immediate vicinity of the project area may be impacted. However, we have developed a very specific flight path and altitude requirement to protect both desert bighorn sheep and Sonoran pronghorn. We believe this to be a localized impact and will not significantly affect desert bighorn sheep found throughout the refuge, or for the population inhabiting the Growler Mountains. We have not identified this area as a critical lambing area.

One respondent expressed concern helicopter flights may impact Sonoran pronghorn. We worked with DHS and agreed upon a flight path and altitude limits to minimize impacts to Sonoran pronghorn. Furthermore, the Service evaluated this impact within the Final Biological Opinion which determined the proposed project would not jeopardize the continued existence of Sonoran pronghorn.

One commenter questioned why the Compatibility Determination focused more on Sonoran pronghorn than desert bighorn sheep as the project will occur within desert bighorn sheep habitat. We believe the impacts from illegal activity and the current operational strategy to interdict these activities affect Sonoran pronghorn much more than desert bighorn sheep. Over the last 10 years, our sheep population estimates have slowly increased while our pronghorn population numbers plummeted in 2002 and have been very slow to recover and has failed to increase since 2004. We recognize the proposed project will directly affect desert bighorn sheep within the immediate vicinity of the project area, but believe Sonoran pronghorn will benefit from the deterrence capability these towers are expected to produce.

Three respondents were concerned the deployment of the Ajo1 project will result in the shift of illegal smuggling traffic to the central and western portions of the refuge and thus subsequent damage to wilderness and other trust resources will simply shift westward. We agree that traffic may shift westward onto other areas on CPNWR. We discussed this issue within the Indirect Impacts section of this document. This is one of the reasons we identified Stipulations 1 and 4. Stipulation 1 requires the Ajo Station, Wellton Station, Tucson Sector, and Yuma Sector, in coordination with CPNWR, develop a strategic plan with specific goals and objectives necessary

to deter illegal entry into the CPNWR. Stipulation 4 requires CBP to implement an appropriate response to the illegal traffic to create deterrence through effective enforcement within CPNWR.

Three of the respondents expressed concern over the cumulative impact of this proposal as well as other reasonably foreseeable actions identified in the Cumulative Impacts section of this compatibility determination. One respondent was also concerned that absent a holistic assessment, synergistic cumulative impacts of infrastructure and operations will continue to be poorly understood and addressed. We share these concerns; however, none of the foreseeable actions identified are dependent upon this action. These potential actions, if proposed will be analyzed to determine if the direct, indirect, and cumulative impacts materially interfere with or detract from the fulfillment of the mission of the National Wildlife Refuge System or the purposes of the CPNWR as well as ensuring the proposals do not violate The Wilderness Act of 1964, and/or the Endangered Species Act of 1973, as amended. Furthermore, this is also one of the reasons we have required Stipulation 1. We believe the development of an operational strategy with the goal of deterring illegal traffic is in the best interest of the mission of the National Wildlife Refuge System, the National Wilderness Preservation System, and DHS.

After a careful review of all of the comments, it is my determination the placement of the CRT will not materially interfere or detract from the fulfillment of the National Wildlife Refuge System Mission or the purposes for which the refuge was established, including the Arizona Desert Wilderness Act of 1991. I believe the benefits of classifying and interdicting illegal activity with the technology associated with the Ajo1 project will eventually deter illegal activity from occurring within the most impacted area within the Cabeza Prieta wilderness.

### **JUSTIFICATION**

Since CPNWR shares 56 miles of International border with Mexico and has experienced substantial, widespread degradation of trust resources from illegal smuggling activities and subsequent interdiction efforts, I must consider both the long and short term effects of this proposal. Through the EA and Biological Assessment, DHS has tried to predict both the potentially adverse and beneficial effects from the construction and operation of the Ajo1 Project. DHS concludes within the EA the Ajo1 project will result in increased apprehensions of individuals illegally entering and/or illegally smuggling contraband into the U.S. and thus deter illegal smuggling activities from occurring within areas covered under the Ajo1 Project. If this occurs, the need for CBP to conduct off road interdiction efforts in the Growler Valley will substantially decrease, thus protecting wilderness character, Sonoran pronghorn, and other trust resources. The Service concurs with this determination.

Furthermore, if the towers fail to meet DHS's stated goals and objectives, DHS has agreed to remove towers within one year of this determination. In addition to removing towers, DHS will also remediate any impacts caused by construction, operation, and/or removal of the CRT. DHS

is required to perform any conservation measures contained in the BO, such as site clean-up and habitat restoration.

The charge of this document is for the CPNWR to analyze the request by DHS to construct a CRT and determine if the CRT will materially interfere with or detract from the fulfillment of the mission of the National Wildlife Refuge System or the purposes of the CPNWR. A Compatibility Determination is made by the Refuge Manager using sound professional judgment. Namely a decision must be consistent with the principles of sound fish and wildlife management and administration, available science and resources, and adhere to the requirements of applicable laws and Service policies. Considered as part of this finding, determination, or decision is a Refuge Manager's field experience and knowledge of the particular refuge resources.

The construction and operation of the CRT will have a direct adverse affect to wilderness character within the eastern portion of CPNWR. However, this adverse affect is minimized by the increased apprehension and deterrence of illegal activities within the Growler Valley, a decrease in the amount of off road damage resulting from CBP interdiction illegal smuggling activities, improved security for the CPNWR staff, volunteers, and visitors, and the ability to begin implementing restoration projects in the Growler Valley. Given these anticipated benefits, the placement of the CRT will not materially interfere or detract from the fulfillment of the National Wildlife Refuge System Mission or the purposes for which the refuge was established, including the Arizona Desert Wilderness Act of 1991.

Information found in the project's EA, Finding of No Significant Impact, and the final BO is incorporated by reference. The reader should refer to these documents for a more detailed understanding of the project and its<sup>2</sup> implications and effects to the environment. DHS is also required to implement the conservation measures contained in the BO.

### **DETERMINATION**

☐ Use is Not Compatible

☒ Use is Compatible with the Following Stipulations

### **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY**

For successful implantation of the SBInet project on CPNWR and consistent with the March 2006, MOU between DHS, DOI, and USDA, DHS and their contractors must cooperate closely with the CPNWR to implement measures to minimize and/or eliminate the adverse environmental impacts their activities have had and will have on the refuge. DHS must be held accountable for their activities and commit to cooperate with the CPNWR to avoid future and reverse existing adverse environmental impacts. Additional natural resource impacts associated with the construction and operation of tactical infrastructure and overall CBP operations will be

addressed through subsequent written agreements between CBP and the CPNWR. Construction and operation of the CRT is approved if DHS agrees to the stipulations below:

Stipulation 1:

CBP (specifically Wellton Station, Yuma Sector, Ajo Station, and Tucson Sector), in coordination with CPNWR, will develop for implementation a strategic plan with specific goals, objectives, and needs necessary to deter illegal entry into the CPNWR. This plan shall recognize and include the ongoing planning associated with additional *SBI<sub>net</sub>* towers, radio repeaters, road maintenance, and other infrastructure needs. The cooperative development of strategic plan will allow CBP and the refuge to work together to find the tactical infrastructure needs necessary to deter illegal traffic moving through the refuge. This will allow for the successful completion of the missions of both CBP and the USFWS.

Stipulation 2:

Because the refuge straddles two different U.S. Border Patrol Stations operating out of two different sectors, CBP must ensure that coverage is maintained to the east and west of the project area.

Stipulation 3:

CBP will provide monthly reports that summarize illegal activities and off road interdiction actions occurring on the refuge in accordance with the 2006 MOU;

Stipulation 4:

If illegal smuggling traffic and/or off road interdiction activities increase on the refuge, CBP agrees to implement appropriate response to the illegal traffic to create deterrence through effective enforcement within CPNWR to minimize (in the long run) impacts associated with smuggling and resultant interdiction activities.

Stipulation 5:

CBP must commit to developing and implementing a Decommissioning and Restoration Plan. This plan must include both site cleanup and habitat restoration.

Stipulation 6:

CBP will provide a yearly schedule of the anticipated maintenance flights by January 31 of each year the SUP is valid. If CBP must modify the flight schedules, CBP will notify the refuge of the scheduled change no less than 7 days prior to conducting the rescheduled maintenance flight. CBP will notify the refuge no less than 1 day prior to conducting any additional unanticipated flights to complete unscheduled equipment repairs.

Stipulation 7:

The Special Use Permit (SUP) for the construction and operation of the CRT will be automatically renewed every two years provided the terms and conditions of the SUP are met by CBP. Should the Service find CBP out of compliance and unable to satisfy the Refuge Manager's direction for meeting the conditions of the SUP, the Service shall issue a sixty day notice in writing to CBP of the intent to terminate the SUP. During this sixty day notice, CBP and the Refuge will work together to seek resolution of outstanding permit conditions. Prior to the termination of the SUP, the issue will be elevated to the Secretary of DOI and the Secretary of DHS for review.

#### National Environmental Policy Act (NEPA) Compliance

DHS completed a Final Environmental Assessment and Finding of No Significant Impact for this project in December 23, 2009. The document can be found on the internet at the following url address:

[http://www.cbp.gov/linkhandler/cgov/border\\_security/sbi/sbi\\_news/sbi\\_enviro\\_docs/nepa/ajo/ea\\_fonsi/ajo\\_final.ctt/ajo\\_final.pdf](http://www.cbp.gov/linkhandler/cgov/border_security/sbi/sbi_news/sbi_enviro_docs/nepa/ajo/ea_fonsi/ajo_final.ctt/ajo_final.pdf)



**Signature:    Refuge Manager** \_\_\_\_\_

**Concurrence: Regional Chief** \_\_\_\_\_

**Mandatory 10-year Re-Evaluation Date:** February 2020

**Attachments:**

- Table 1
- Figure 1
- Figure 2
- Figure 3
- Figure 4

Table 1.

Construction Phases	Activities	Duration in Days	Minimum Number of Lifts					
			Construction/Equipment/Material					Personnel Lifts *
			Description	Purpose	Weight	Duration on site	Lift	
Civil Layout	A&B work, Flag/tag	1	Toilet, Survey Equipment, Install SWPPP measures	Lay out and set up the site for construction.	1000	20 days	1	3
	Establish site with basics (toilet, some tools)							
	SWPPP measures							
Civil 1	Lift required tools to site	3	Mini Excavator	Earthwork and Assy	6000	20 days	3	9
	Clear ground		Air Compressor (Atlas Copco 18 CFM), Rock Saw, Rock Drill, Chipping Hammers, Core Drill, Misc Tools	Prepare site, assembly	3000	12 days		
	Drill anchor points		Jobox, Generator, Fuel, Gin Pole, Grounding Equipment	Assembly	3000	20 days		
Tower Installation	Equipment foundation blocks	2	Base Foundation Wafer #1 w/ Anchor Bolts	Assembly	6000	Permanent	4	6
	Locate and anchor equipment		Base Foundation Wafer #2 w/ Anchor Bolts	Assembly	6000	Permanent		
	Erect Tower		30' RDT Assembly, Climbing Ladder w/ Safety Climb, Transmission Line Brackets, Antenna Mount, Air Terminal Kit Mounting Hardware	Assembly	3000	Permanent		
			Set Tower	Assembly	2000	Permanent		

Table 1 (Continued).

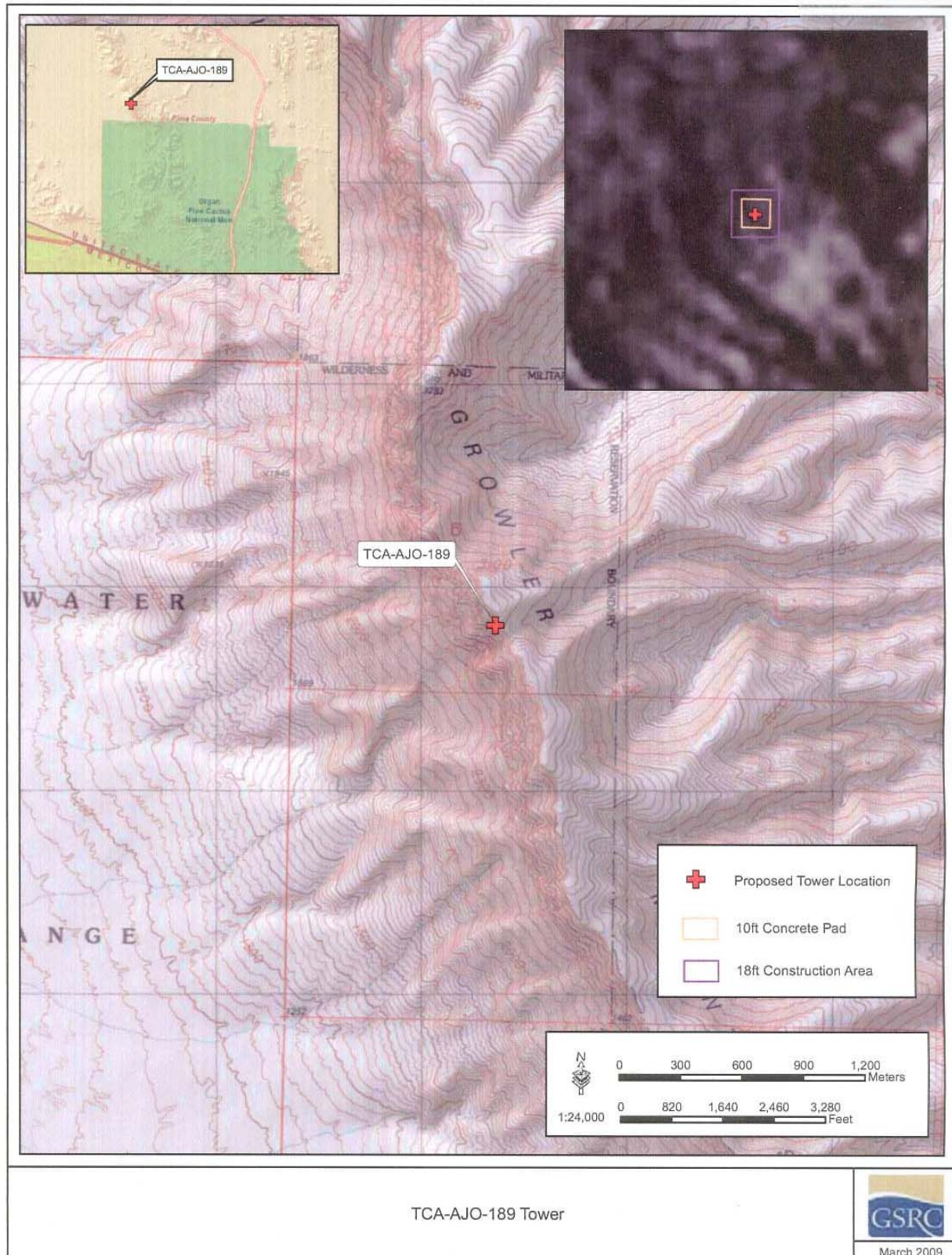
Grounding System Installation	Dig trench	3	No Equipment Lifts Needed	Assembly	N/A	N/a	0	9
	lay grounding ring							
	Make welds/preliminary connections							
	Grounding Inspections							
	Backfill trench							
	ETPs for grounding							
Power System Installation	Install and test batteries	5	Battery Cabinet #1 (assembled), Installation Materials	Assembly	5000	Permanent	9	15
	Install solar panels		Battery Cabinet #2 (assembled), Installation Materials	Assembly	5000	Permanent		
	Install controls		8 Solar Panel Frames, 12 Solar Panel Frames	Assembly	2500	Permanent		
	Run cables		Water Tank (with Water)	Assembly	5000	Permanent		
	Connect to grounding		Carmanah Light, Air Terminal Kit (hardware already installed on tower), 8 Solar Panels, 12 Solar Panels, Electronics Rack	Assembly	1500	Permanent		
	ETPs for power		Set Battery Cabinet #1	Assembly	5000	Permanent		
			Set Battery Cabinet #2	Assembly	5000	Permanent		
			Set Equipment Foundation #1	Assembly	6000	Permanent		
			Set Equipment Foundation #2	Assembly	6000	Permanent		
Communications System Installation	Hang dishes	3	2 Microwave Dishes (6 inch), 2 Radios, 2 Cables	Assembly	1000	Permanent	1	9
	Connect waveguides							
	Teminate connections							
	Preliminary alignments							
	ETP testing procedures							

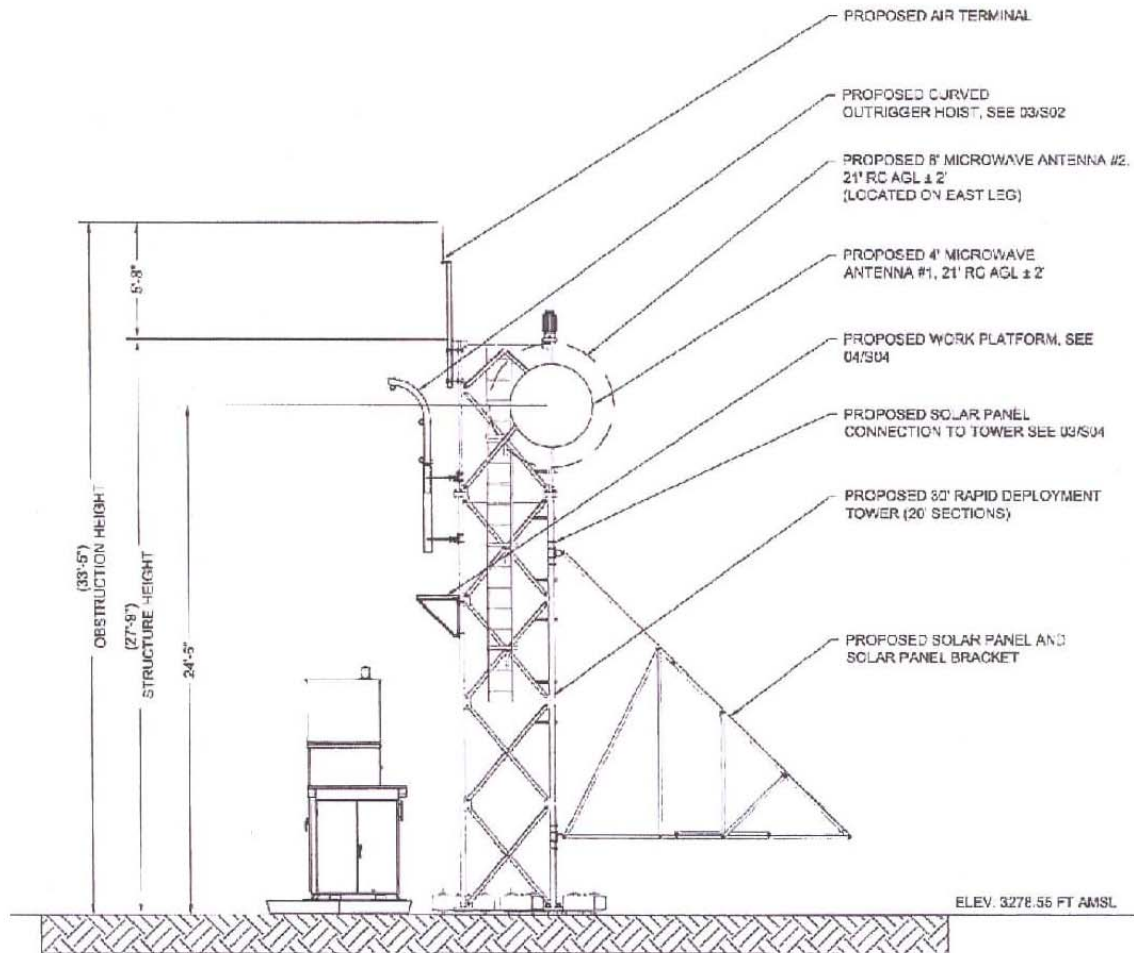
Table 1 (Continued).

Civil 2	Clean site	1	Remove Mini Excavator	Move earth	6000	20 days	4	3
			Air Compressor (Atlas Copco 18 CFM), Rock Saw, Rock Drill, Chipping Hammers, Core Drill, Misc Tools	Remove Tools	3000	12 days		
	Remove equipment, parts, packaging		Jobox, Generator, Fuel, Gin Pole, Package Material, Remaining Site Tools	Remove Tools	3000	20 days		
	Remove SWPPP Measures, Remove Toilet		Remove equipment	1000	20 days			
Restoration, Test, and Acceptance	Power up all components	3	No Equipment Lifts Needed	Acceptance of site	N/A	N/A	0	9
	Align dishes							
	ETPs							
	Boeing walkthrough							
	Punch list							
	Remove SWPPP measures							
	Revegetate, return site to natural state per contract							

21      **Total Days****22      63      85**

Figure 1





Source: Boeing 2009

Figure 2-7: Typical Profile of RAT Tower



November 2009



Figure 3

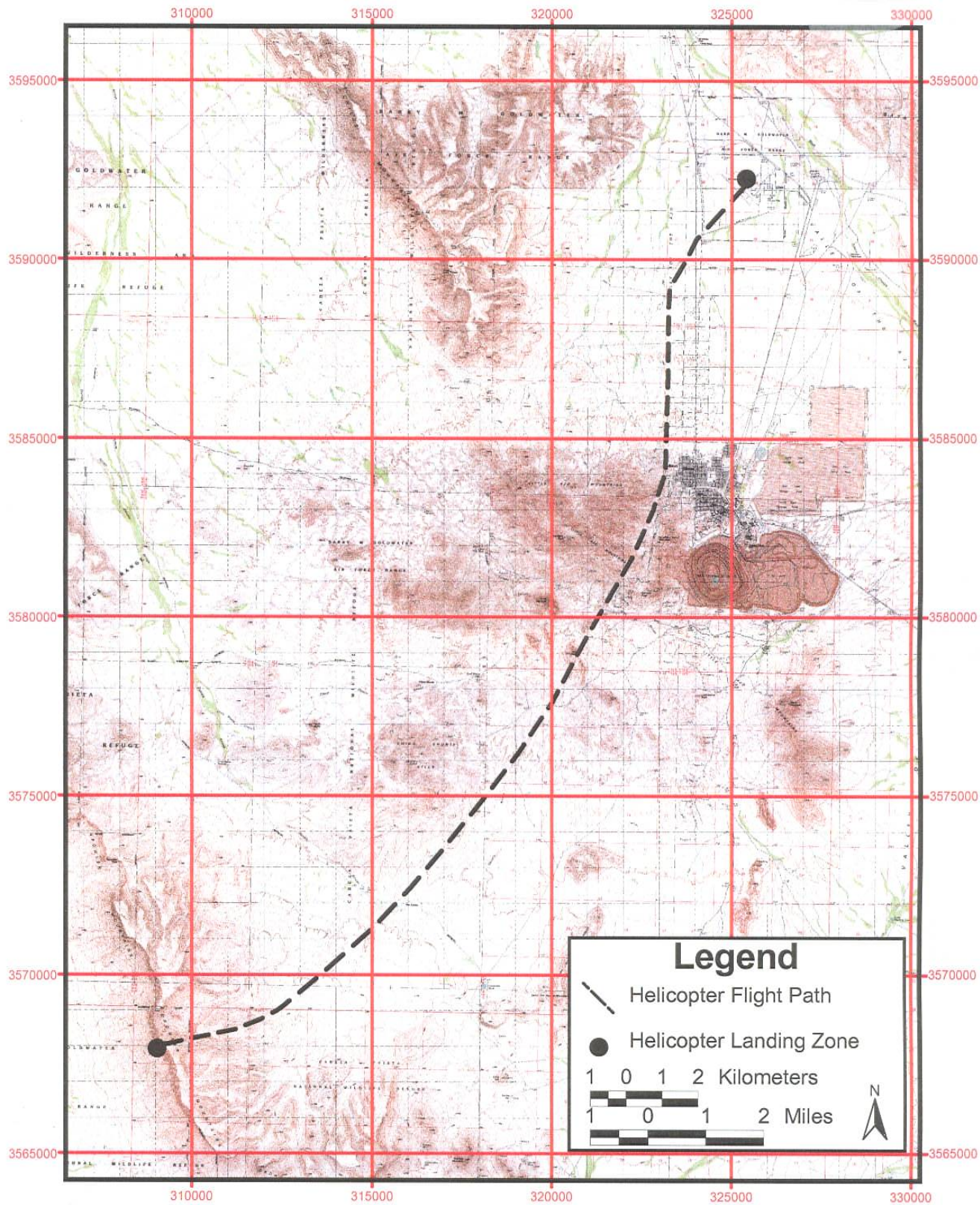
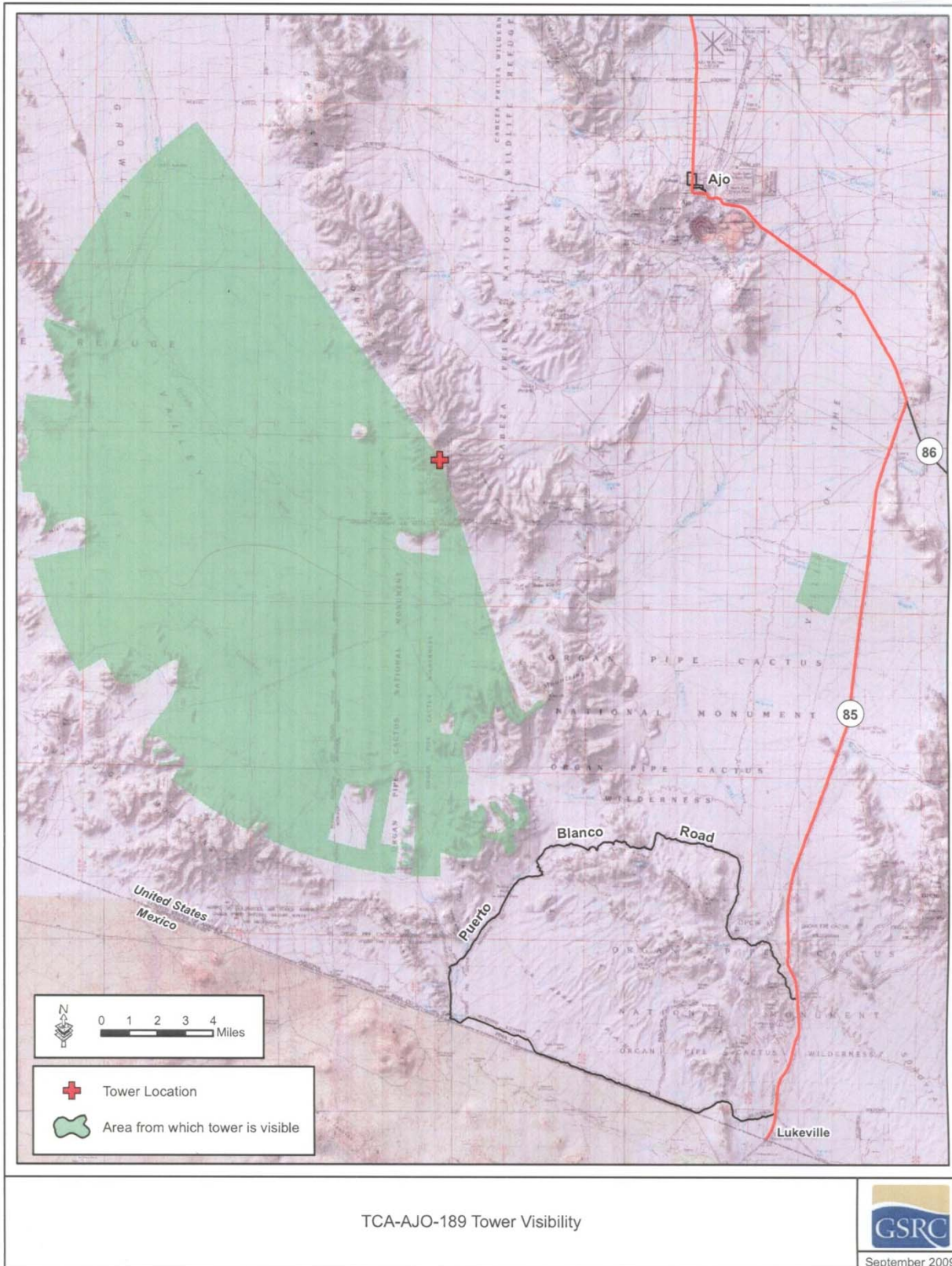




Figure 4

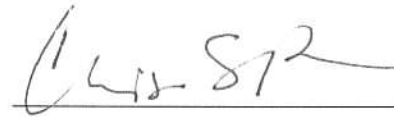




**Signature: Refuge Manager**

 2/11/2010

**Concurrence: Regional Chief**

 02-12-10

**Mandatory 10-year Re-Evaluation Date:** February 2020

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